PROPOSED

Covered Source Permit Review Summary (Renewal)

Application File No.: Renewal application No. 0307-06

Permit No.: 0307-02-C

Applicant: Aloha Petroleum, Ltd.

Facility: Hilo East Terminal
999 Kalanianaole Avenue, Hilo, Hawaii

Mailing Address: Aloha Petroleum, Ltd.
661 Kalanianaole Avenue
Hilo, Hawaii 96720

Responsible Official: Mr. Kelvin Chun
Terminal Manager
(808) 935-8288

Point of Contact: Mr. Patrick Iona
Manager Projects/HSE
(808) 673-4299

Application Dates: Renewal application dated July 29, 2011

SICC: 5171 (Petroleum Bulk Stations and Terminals)

Proposed Project:

This is an application to renew Covered Source Permit (CSP) No. 0307-02-C which expires July 31, 2012. Aloha Petroleum Ltd. owns and operates a bulk petroleum storage and distribution facility located at 999 Kalanianaole Avenue, Hilo, Hawaii. Gasoline, gasoline additive, distillate products and denatured ethanol are received via marine barge and connecting pipelines, or tanker truck, and are then off-loaded to the above ground tanks at the terminal. Gasoline additive is transferred via a portable tank received by barge, or is off loaded from tanker trucks for storage in one of the above ground additive tanks within the tank farm. Denatured ethanol is stored onsite in an above ground tank and blended into the gasoline at the existing load rack in order to meet current state gasoline blending requirements. Although the terminal is only storing and distributing gasoline, ethanol, and diesel, terminal operational flexibility and market variations may dictate distribution of other petroleum products in the future.

As a facility, the tank farm consists of nine (9) above ground storage tanks. Of the nine (9) storage tanks, three (3) are external floating roofs with geodesic domes, two (2) internal floating roof tanks, two (2) fixed roof tanks, and two (2) small additive tanks. The internal floating roof tanks and external floating roof tanks store gasoline or ethanol. The fixed roof tanks store diesel. The tank truck load rack loads gasoline, ethanol, and diesel fuel into petroleum tank trucks. There were no proposed changes to the existing facility.

An application filing fee of $3,000 was submitted and processed.

Equipment:

1. One (1) 10,000 barrel internal floating roof tank, no. 901;
2. One (1) 10,000 barrel internal floating roof tank, no. 902;
3. One (1) 5,143 barrel external floating roof petroleum storage tank with geodesic dome, no. 5869;
4. One (1) 5,143 barrel external floating roof petroleum storage tank with geodesic dome, no. 5870;
5. One (1) 5,143 barrel external floating roof petroleum storage tank with geodesic dome, no. 5871; and
6. One (1) bottom loading tank truck loading rack with four (4) load arms (two gasoline, one ethanol and one diesel).

Air Pollution Controls:

Air pollution controls for the tanks include internal and external floating roofs and geodesic domes. The load rack utilizes bottom loading which has lower emissions than top loading.

Operational Limits:

The tank truck load rack will have a throughput limit for gasoline and ethanol of 857,683 barrels combined per rolling twelve-month (12-month) period.

Applicable Requirements:

Hawaii Administrative Rules (HAR)

Chapter 11-59, Ambient Air Quality Standards
Chapter 11-60.1, Air Pollution Control
- Subchapter 1, General Requirements
- Subchapter 2, General Prohibitions
  - 11-60.1-31 Applicability
  - 11-60.1-39 Storage of Volatile Organic Compounds
- Subchapter 5, Covered Sources
- Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
  - 11-60.1-111 Definitions
  - 11-60.1-112 General Fee Provisions for Covered Sources
  - 11-60.1-113 Application Fees for Covered Sources
  - 11-60.1-114 Annual Fees for Covered Sources
  - 11-60.1-115 Basis of Annual Fees for Covered Sources
- Subchapter 8, Standards of Performance for Stationary Sources
- Subchapter 9, Hazardous Air Pollutant Sources

Federal Requirements:

40 Code of Federal Regulations (CFR) Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which

Construction, Reconstruction, or Modification Commenced after July 23, 1984 - is applicable to Tank nos. 901 and 902.

40 CFR Part 63, Subpart BBBBBB - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities - is applicable to all tanks in gasoline service (Tank nos. 901, 902, 5869, 5870 and 5871), the petroleum tank truck load rack, and fugitive components in gasoline service. Per Table 2 of Subpart BBBBBB, the gasoline load rack has a total throughput of less than 250,000 gallons per day and as an existing facility, is required to be in compliance no later than January 10, 2011. Per the requirements in Table 2 of Subpart BBBBBB, the facility is in compliance as it uses submerged filling with a submerged fill pipe (no more than 6 inches from the bottom of the cargo tank) and keeps records of all throughputs that are available upon request.

Non-Applicable Requirements:

Hawaii Administrative Rules (HAR)

Chapter 11-60.1, Air Pollution Control
Subchapter 7, Prevention of Significant Deterioration Review

Federal Requirements:

40 CFR Part 60, New Source Performance Standards (NSPS) Subparts K, Ka, and Kb - Standards of Performance for Storage Vessels for Petroleum Liquids - are not applicable to tank nos. 5869, 5870 and 5871 because of the dates of construction (built 1960).

40 CFR Part 60, New Source Performance Standards (NSPS) Subpart XX - Standards of Performance for Bulk Gasoline Terminals - is not applicable because of the construction date of the tank truck load rack (1960).

40 CFR Part 61 – National Emission Standards for Hazardous Air Pollutants (NESHAP)

40 CFR Part 63, Subpart R - National Emission Standards for Hazardous Air Pollutants for Gasoline Distribution Facilities - is not applicable to the facility because the facility is not a major source of HAPs.

Best Available Control Technology (BACT):

A Best Available Control Technology (BACT) analysis is required for new or modified sources that have the potential to emit or increase emissions above significant amounts as defined in HAR §11-60.1. Since this is not a new source nor are any modifications proposed that have the potential to cause a significant net increase in air emissions, a BACT analysis is not required.

Compliance Assurance Monitoring (CAM):

The purpose of Compliance Assurance Monitoring (CAM) is to provide a reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 Code of Federal

Regulations, Part 64, for CAM to be applicable, the emissions unit must: (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential pre-control emissions that are 100% of the major source level; and (5) not otherwise be exempt from CAM. CAM is not applicable because the units do not use a control device to achieve compliance.

CERR (Consolidated Emission Reporting Rule):

40 CFR Part 51, Subpart A – Emission Inventory Reporting Requirements, determines the annual emissions reporting frequency based on the actual emissions of each pollutant from any individual emission point within the facility that emits at or above the triggering levels. Since the sources at this facility are fugitive sources, CERR does not apply.

The Department does however require facilities to report their annual emissions if the facility-wide emissions exceed the Department's trigger levels. The Department's trigger level for VOCs is twenty-five (25) tons per year. Since the facility has the potential to emit more than twenty-five (25) tons per year VOC, they must report their annual emissions to the Department.

Prevention of Significant Deterioration (PSD):

PSD is not applicable because this facility is not a *new* major stationary source nor does this application propose any *major modifications* to a major stationary source as defined in 40 CFR 52.21. A *major modification* is defined as a project at an existing major source that will result in a significant and a significant net - emissions increase above specified emission thresholds for pollutants subject to regulation.

Synthetic minor:

A synthetic minor is a facility that without limiting conditions, physical or operational, emits above the major source triggering levels as defined by HAR §11-60.1-1 for either criteria pollutant(s) or hazardous air pollutant(s). This facility is a major source and thus, is not a synthetic minor.

Project Emissions:

Source	VOC Emissions (tpy)	HAP Emissions (tpy)
Tank 901[1]	3.80	0.105
Tank 902[1]	3.80	0.105
Tank 5869[1]	0.57	0.018
Tank 5870[1]	0.57	0.018
Tank 5871[1]	1.74	0.049
Tank Truck Load Rack[2]	217.75	5.771
Pipeline Fugitives[3]	0.11	0.027
Total Emissions	228.33	6.094

[1] Calculated using EPA TANKS 4.0.9d software program
[2] Calculated using EPA AP-42 Section 5.2
[3] Emission factors from EPA's Protocol for Equipment Leak Emission Estimates, Table 2-3 (11/95)

Greenhouse Gas (GHG) Emissions:

Starting July 1, 2011, existing PSD facilities (for another regulated NSR pollutant) or (emitting 100,000 tpy CO_2e) making changes that would increase GHG emissions by at least 75,000 tpy CO_2e, are required to obtain PSD permits that address GHG emissions. As the terminal does not operate any stationary combustion sources, GHG emissions are negligible and PSD review for CO_2e is not triggered.

Alternate Operating Scenarios:

The storage tanks may store a variety of petroleum products. The analysis assumed that gasoline would be stored. Since gasoline is the most volatile, storing any other petroleum product will have lower emissions of VOCs.

Insignificant Activities:

There are no new insignificant activities being proposed. Insignificant activities at the facility currently include the following:

1. One (1) 280 gallon underground spill containment tank (HAR §11-60.1-82(f)(1));
2. Two (2) 4,000 gallon underground storage tanks (HAR §11-60.1-82(f)(1));
3. Two (2) 5,855 gallon barrel additive tanks, tank nos. 2267 and 8251 (HAR §11-60.1-82(f)(1));
4. Two (2) 98,973 gallon fixed roof diesel storage tanks, tank nos. 2602 and 2603 (HAR §11-60.1-82(f)(7));
5. One (1) oil/water separator (HAR §11-60.1-82(f)(7)); and
6. Pipeline fugitive emissions (HAR §11-60.1-82(f)(7)).

Air Quality Assessment:

The only emissions are fugitive VOCs from the petroleum storage tanks and the petroleum tank truck loading rack and any HAPs associated with these VOCs. An ambient air quality impact assessment is not required for the following reasons: 1) VOCs do not have an ambient air quality standard, and, 2) the Department of Health air modeling guidance generally exempts an applicant from performing an ambient air quality impact assessment for fugitive sources (storage tanks, pipe leaks, etc.).

Significant Permit Conditions:

Significant permit conditions include the following:

- 40 CFR Part 63, Subpart BBBBBB - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities - is applicable to all tanks in gasoline service (tank nos. 901, 902, 5869, 5870 and 5871), the petroleum tank truck load rack, and fugitive components in gasoline service. Note that since tank nos. 5869, 5870 and 5871 are external floating roof tanks with

geodesic domes they were treated as internal floating roof tanks for compliance with Subpart BBBBBB.

- 40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 - is applicable to tank nos. 901 and 902.

- The petroleum tank truck load rack will have a throughput limit for gasoline and ethanol of 857,683 barrels combined per rolling 12-month period.

- The petroleum tank truck load rack will comply with the current facility requirements that only three (3) loading arms can be operated simultaneously at any given time; two gasoline and one diesel load arm or one gasoline, one ethanol and one diesel load arm.

Conclusion/Recommendation:

Recommend issuing the renewal for Covered Source Permit (CSP) No. 0307-02-C, subject to the significant permit conditions described above, and a 30-day public comment period and a 45-day EPA review period. This permit shall supersede CSP No. 0307-02-C issued on August 6, 2008 in its entirety.

Reviewer: Darin Lum
Date: 10/2012